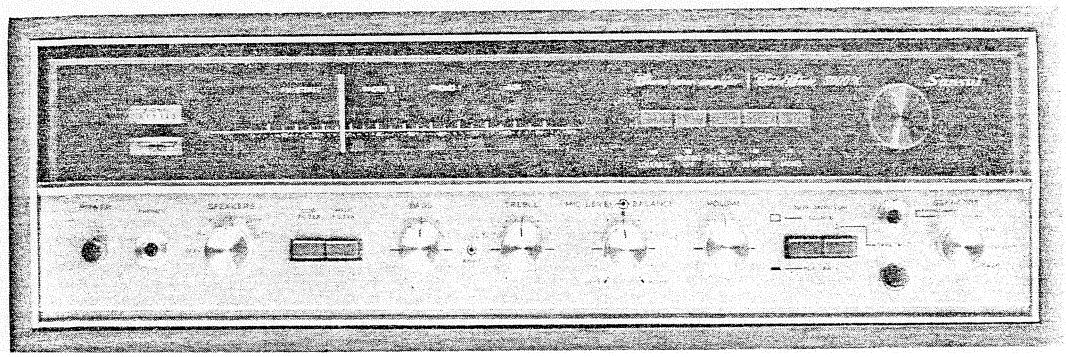
SERVICE MANUAL

SOLID-STATE AM/FM STEREO TUNER AMPLIFIER

SANSUI 5000X



Sansui

SANSUI ELECTRIC CO., LTD.

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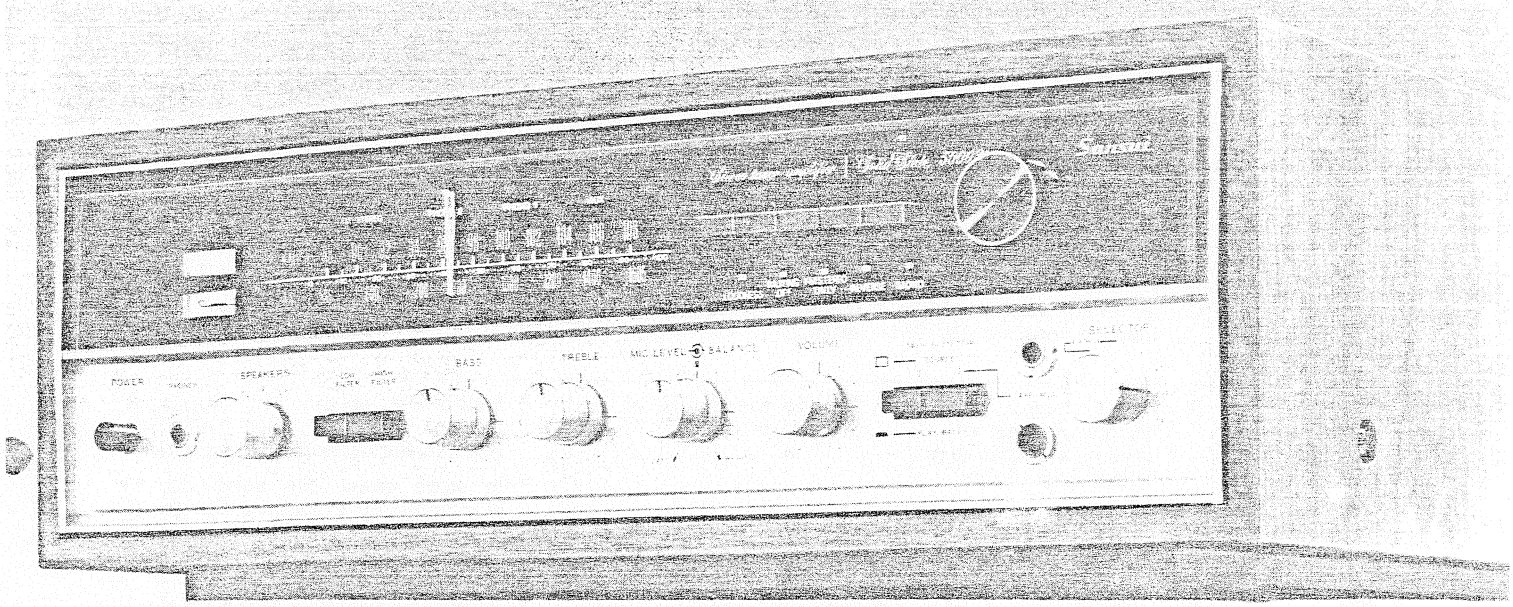

POWER
PHONES
SPEAKERS
LOW FILTER
HIGH FILTER
BASS
TREBLE
MIC LEVEL
BALANCE
VOLUME
TAPE MONITOR
TAPE
SOURCE
SELECTOR

GENERAL TROUBLESHOOTING CHART

If the amplifier is otherwise operating satisfactorily, the more common causes of trouble may generally be attributed to the following:

1. Incorrect connections or loose terminal contacts. Check the speakers, record player, tape deck, antenna and line cord.

2. Improper operation. Before operating any audio component, be sure to read the manufacturer's instructions.

3. Improper location of audio components. The proper positioning of components, such as speakers and turntable, is vital to stereo.

4. Defective audio components.

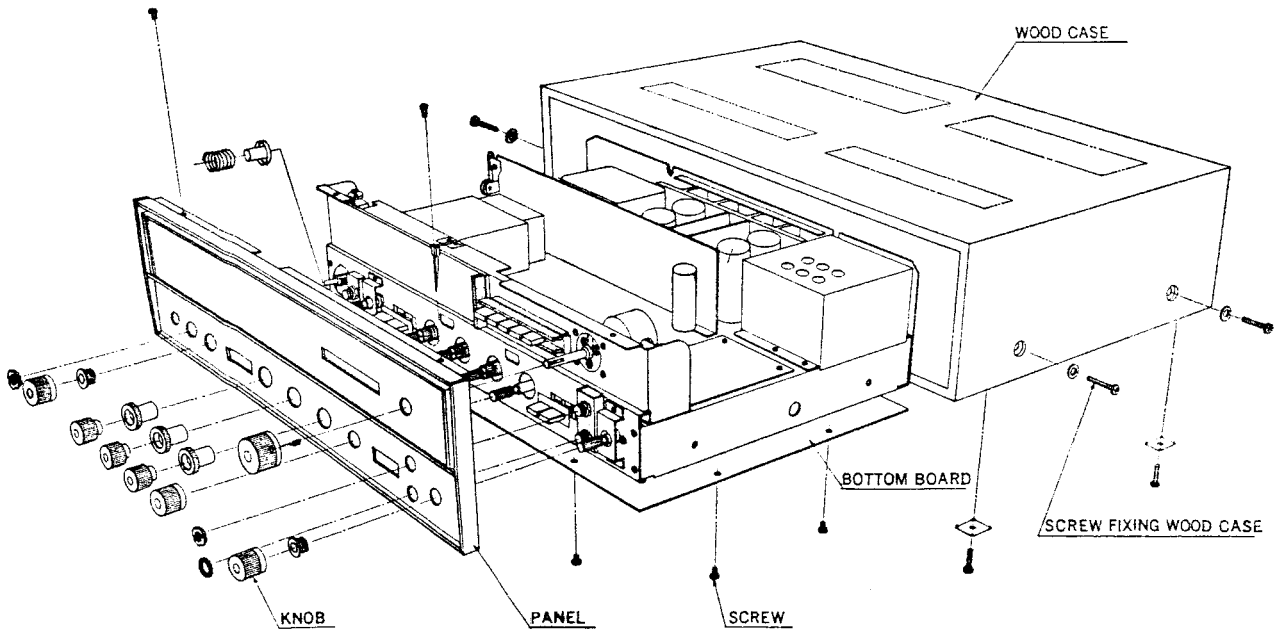
The following are some other common causes of malfunction and what to do about them.

PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
AM, FM or FM-MPX reception	A. Constant or intermittent noise heard at times or in a certain area.	* Discharge or oscillation caused by electrical appliances, such as fluorescent lamp, TV set, D.C. motor rectifier or oscillator * Natural phenomena, such as atmospherics, static or thunders bolts * Insufficient antenna input due to ferroconcrete wall or long distance from the station * Wave interference from other electrical appliances	* Attach a noise limiter to the electrical appliance, or attach it to the amplifier's power source * Install an outdoor antenna and ground the amplifier to raise the signal-to-noise ratio. * Reverse the power cord plug-receptacle connections. * If the noise occurs at a certain frequency, attach a wave trap to the ANT. input. * Keep the set at a proper distance from other electrical appliances.
	B. The needle of the signal and tune meter does not move sharply	* Receiver is located in a weak signal area	* The needle swing varies depending on the stations
	C. The zero point of the meter diverges much	* Regional difference in field intensity.	* The unit is not at fault.
AM reception	A. Noise heard at a particular time of a day, in a certain area or over part of dial	* Due to the nature of AM broadcasts	* Install the antenna for maximum antenna efficiency. See "ANTENNA" in the operating instructions. * In some cases, the noise can be eliminated by grounding the amplifier or reversing the power cord plug-receptacle connections.
	B. High-frequency noise	* Adjacent-channel interference or beat interference * TV set is too close to audio system	* Although such noise cannot be eliminated by the amplifier, it is advisable to adjust the TREBLE control from midpoint to left and switch on the HIGH FILTER * Keep the TV set at a proper distance from the audio system.
FM reception	A. Noisy	* Poor noise limitter effect or too low SN ratio due to insufficient antenna input. Note: FM reception is affected considerably by transmission conditions of stations: power and antenna efficiency. As a result, you may receive one station quite well while receiving another station poorly	* Install the antenna (supplied) for maximum signal strength. * If this does not prove effective, use an outdoor antenna designed exclusively for FM. When you use a TV antenna for both TV and FM with a splitter, make sure TV reception is not affected * An excessively long antenna may cause noise

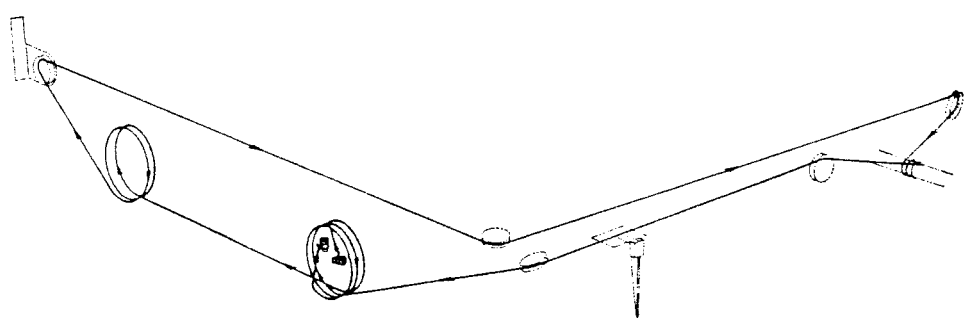
PROGRAM	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
FM reception (cont'd)	B. A series of pops	* Ignition noise caused by starting of an automobile engine	* Install the antenna and its lead-in wire in proper distance from the road or raise the antenna input as described above
	C. Tuning noise between stations	* This results from the nature of the FM reception. As the station signal becomes weak, the noise limiter effect is decreased, and the amplification of the limiter, in turn, is enlarged, generating a noise	* Release the MUTING OFF button
FM-MPX reception	A. Noise heard during FM-MPX reception while not heard during FM mono reception	* Weaker signal because the service area of the FM-MPX broadcast is only half that of the FM mono broadcast	* Install the antenna for maximum antenna input * Switch on the high filter and/or turn the TREBLE control from midpoint, left
	B. Clearness of channel separation is decreased during reception	* Excess heat	* Circulation of air is important to the amplifier. Be sure that air is flowing under the amplifier.
	C. The stereo indicator blinks on and off	* Interference	* The indicator is not at fault, adjust VR_{401}
	D. The stereo indicator blinks on and off even though stereo station is not received	* Interference	* The indicator is not at fault, adjust VR_{401}
Record playing or tape playback	A. Hum or howling	* Record player placed directly on speaker box * Wire other than shielded wire used * Loose terminal contact * Shielded wire too close to line cord, fluorescent lamp or other electrical appliances * Nearby amateur radio station or TV transmission antenna	* Place a cushion between the player and the speaker box or place them away from each other * The connecting shielded wire should be as short as possible * Switch on the LOW FILTER and adjust the BASS control from midpoint, left * Consult the nearest Radio Regulatory Bureau
	B. Surface noise	* Worn or old record * Worn needle * Needle dusty * Improper needle pressure	* Recondition the playback head of the tape deck or the needle of the record player * Adjust the TREBLE control from midpoint, left * Push on the HIGH FILTER
All stereo programs	BALANCE control is not at midpoint when equal sound comes from left and right channels	* It is important to adjust for equal sound from both channels. It should not always be set to the midpoint	* Push on the MONO switch and then set the BALANCE control to a position where equal sound comes from both channels

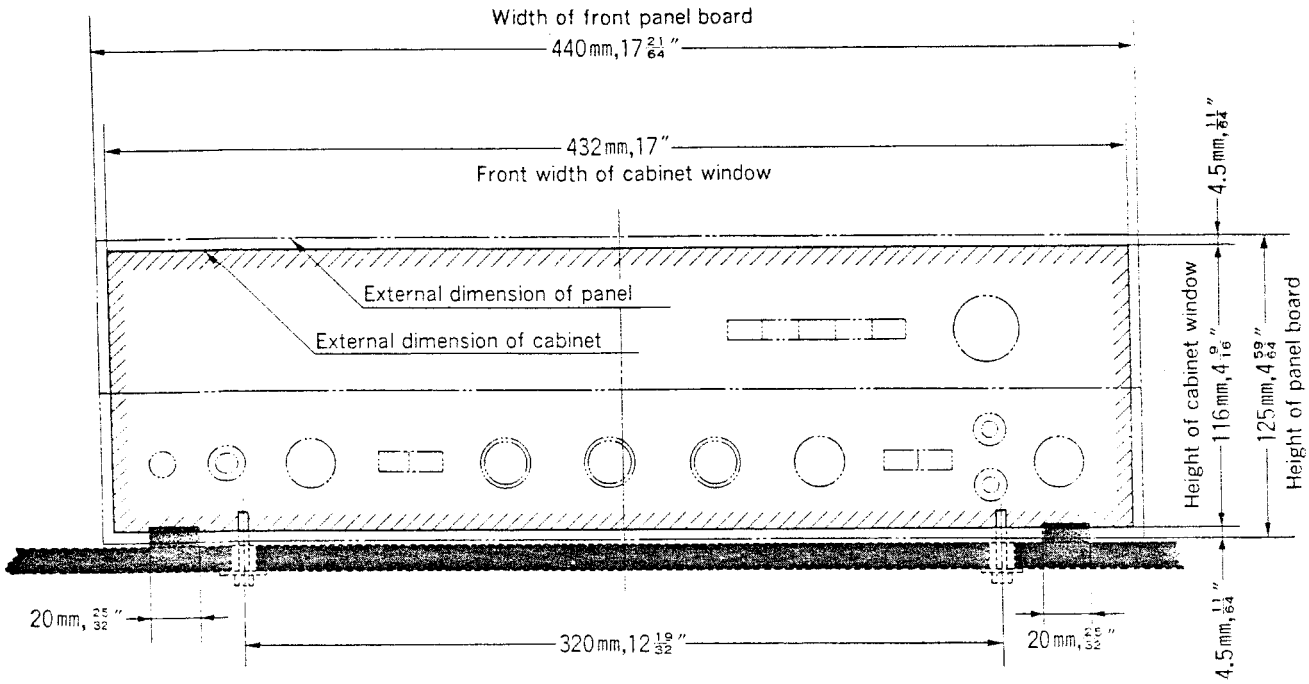
DISASSEMBLY PROCEDURE

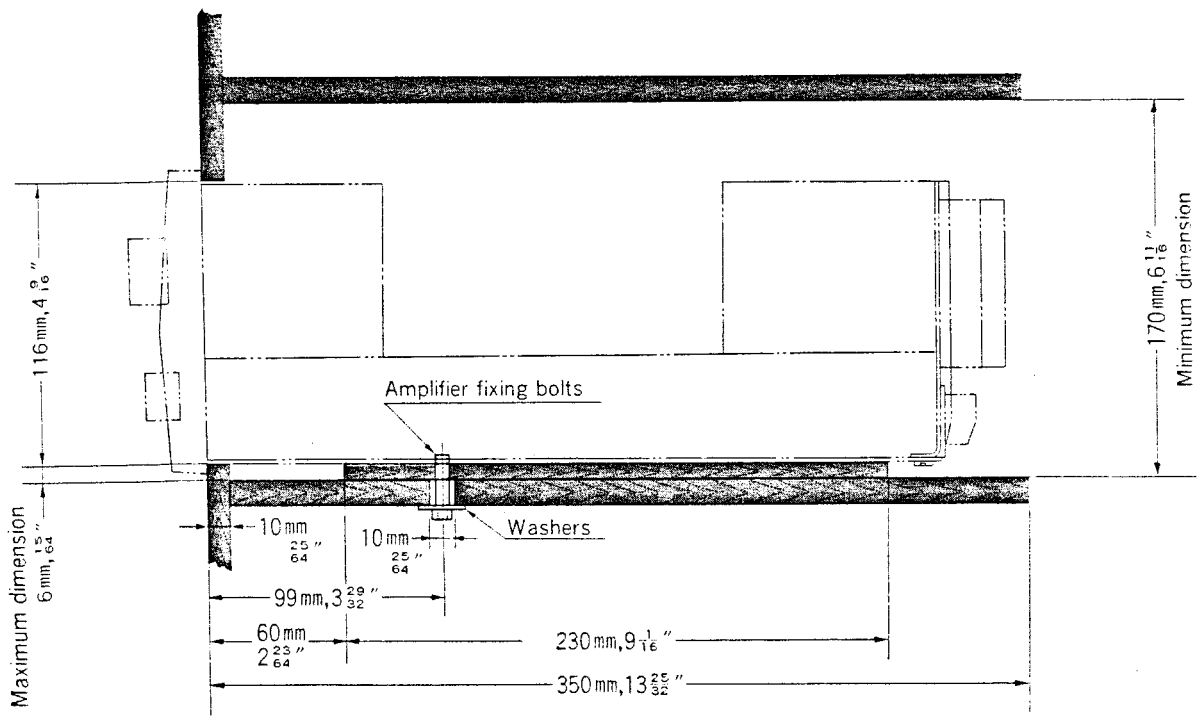
REMOVING THE WOOD CASE, FRONT PANEL AND BOTTOM PLATE



DIAL MECHANISM

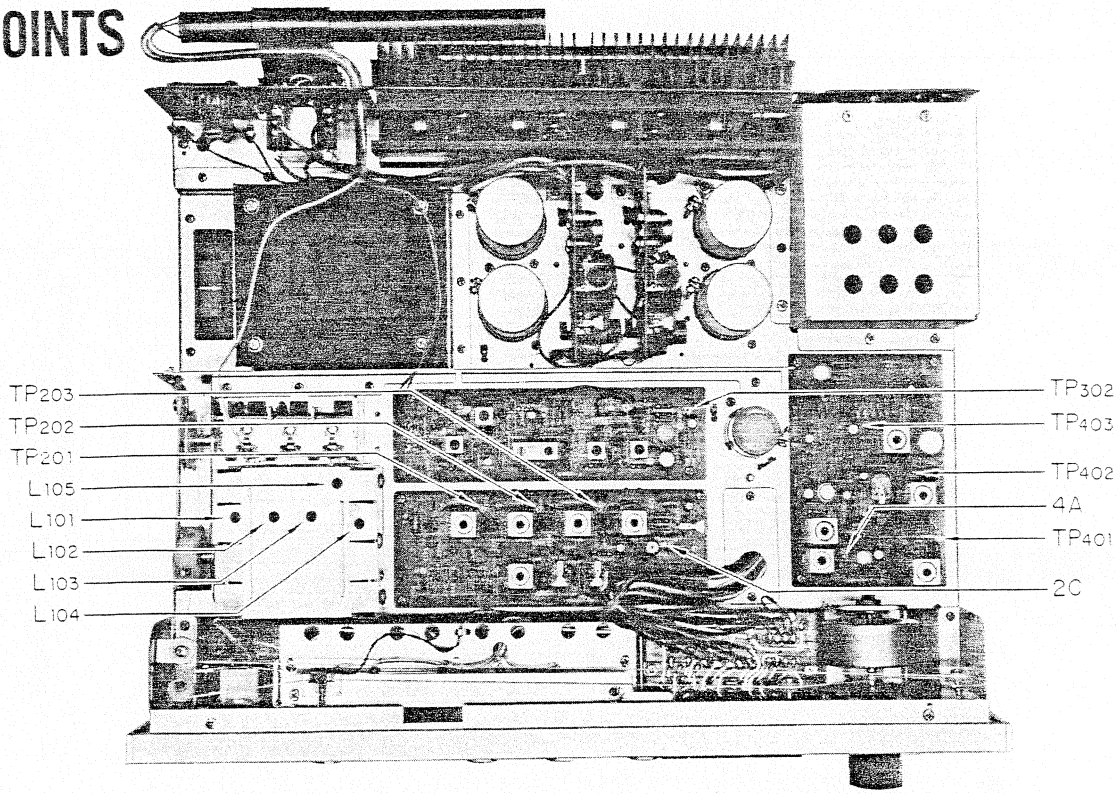


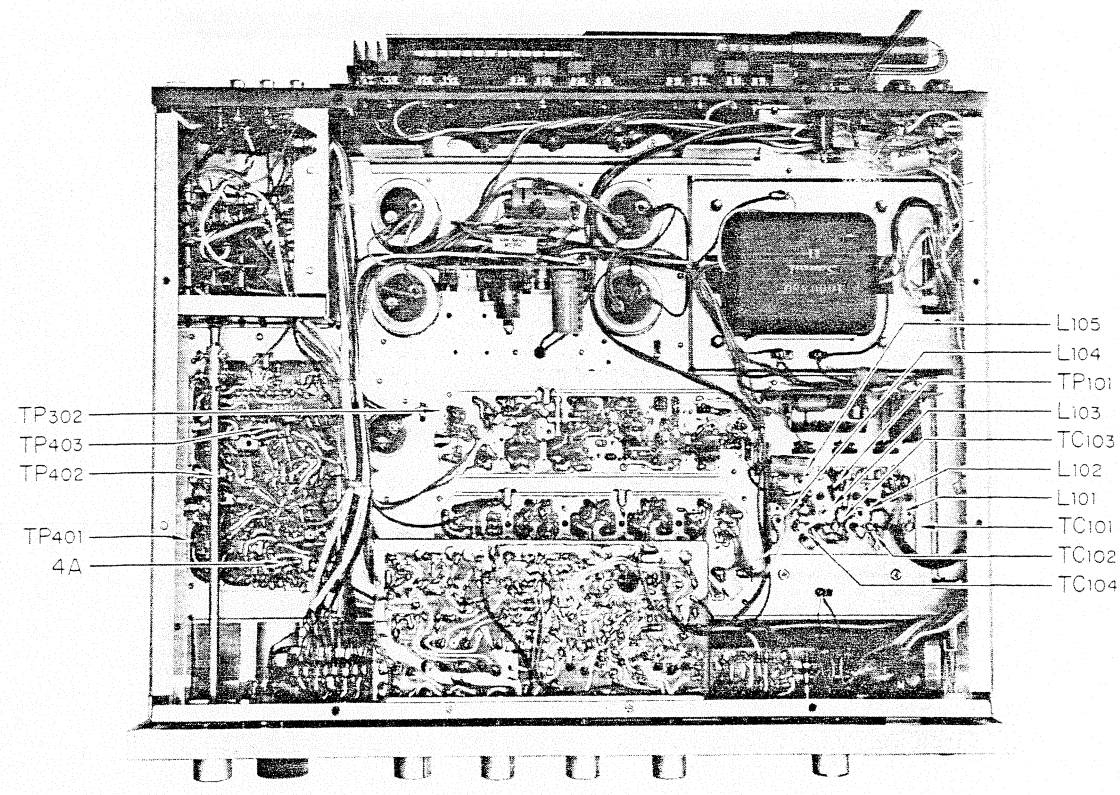

Width of front panel board
440mm,17 21/64"
432mm,17"
Front width of cabinet window
4.5mm, 11/64"
External dimension of panel
External dimension of cabinet
Height of cabinet window
116mm,4 9/16"
125mm,4 59/64"
Height of panel board
20mm, 25/32"
320mm,12 19/32"
20mm, 25/32"
4.5mm, 11/64"


116mm,4 9/16"
170mm,6 11/16"
Minimum dimension
Amplifier fixing bolts
Maximum dimension
6mm, 15/64"
10mm 25/64"
10mm 25/64"
Washers
99mm,3 29/32"
60mm 2 23/64"
230mm,9 1/16"
350mm,13 25/32"

ALIGNMENT

TEST POINTS



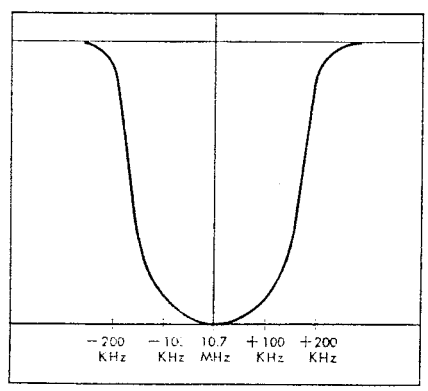


FM ALIGNMENT PROCEDURE

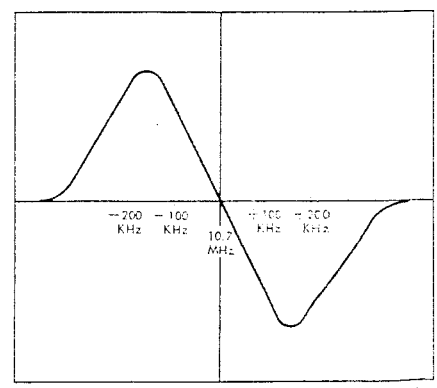
NOTE: To align, set the signal generator level to minimum.
Turn tuning gang fully.
Center carrier wave.
Set pointer at reference mark.

STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	DIAL SETTING	ADJUST	ADJUST FOR
1.	IF Transformer	10.7 MHz ±200 kHz	Sweep signal is sent to TP_{101} via the 10 pF ceramic capacitor	Oscilloscope is connected to $TP_{201,202}$ and $_{203}$ via the 10 pF ceramic capacitor with probe		Top and bottom sides of $T_{201,202}$ and T_{203}	Best I.F.T. wave form
2.	Discriminator	10.7 MHz ±200 kHz	Sweep signal is sent to TP_{101} via the 10 pF ceramic capacitor	Oscilloscope is connected to 2C		FM. Discriminator transformer T_{204} top and bottom sides	S curve
3.	O.S.C.	90 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	90 MHz	O.S.C. coil L_{104}	Maximum
4.	O.S.C.	106 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	106 MHz	O.S.C. trimmer TC_{104}	Maximum
5.	Reiterate 3 and 4.						
6.	High-frequency Amp. Circuit	90 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	90 MHz	Antenna coil L_{101}, L_{102} and L_{103}	Maximum
7.	High-frequency Amp. Circuit	106 MHz 400 Hz 100% Modulation	To antenna terminals	Oscilloscope and V.T.V.M. at output load	106 MHz	Trimmer TC_{101}, TC_{102} and TC_{103}	Maximum
8.	Reiterate 6 and 7.						

FM IF WAVE FORM



FM DISCRIMINATOR WAVE FORM



ALIGNMENT

FM MULTIPLEX ALIGNMENT PROCEDURE

Do not attempt to align the Multiplex Circuit unless the following equipment is available:

a. Multiplex Stereo Generator **b.** Oscilloscope **c.** AC. V.T.V.M. **d.** Audio Oscillator **e.** FM Signal Generator

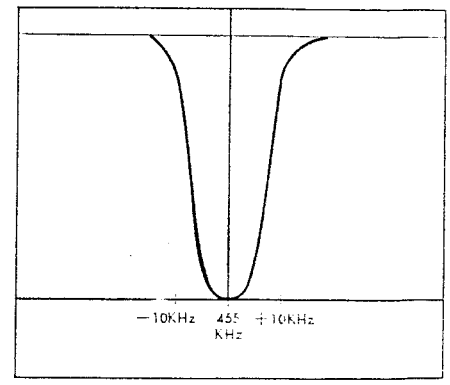
STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	ADJUST	ADJUST FOR
1.	67 kHz Trap	67 kHz Audio Signal	To 4A	V.T.V.M. at TP_{403}	L_{401}	Minimum
2.	71 kHz Trap	71 kHz Audio Signal	To 4A	V.T.V.M. at TP_{403}	L_{402}	Minimum
3.	19 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at TP_{401}	T_{401}	Maximum
4.	19 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at TP_{402}	T_{402}	Maximum
5.	38 kHz Transformer	FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at TP_{403}	T_{403}	Maximum
6.	38 kHz Transformer and Separation VR	FM Signal Gen. Modulated 30% by STEREO Signal Gen. channel-L	To antenna terminals Tune to signal	V.T.V.M. and Oscilloscope at output load channel-R	T_{403} within ¼ turn and Separation VR (VR_{001})	Channel-R Minimum

AM ALIGNMENT PROCEDURE

NOTE: To align, set the signal generator level to minimum.

STEP	ALIGN	GENERATOR	FEED SIGNAL	OUTPUT INDICATOR	DIAL SETTING	ADJUST	ADJUST FOR
1.	I.F. Transformer	455 kHz ±30 kHz Sweep-generator	Antenna terminals	Oscilloscope and V.T.V.M. at TP_{302}		Top side from the 1st I.F.T. (T_{303}) to the 3rd I.F.T. (T_{305})	Best I.F.T. wave form
2.	O.S.C.	AM-generator 535 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	535 kHz	O.S.C. Coil T_{302}	Maximum
3.	O.S.C.	AM-generator 1600 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	1600 kHz	O.S.C. Trimmer TC_{303}	Maximum
4.	Reiterate 2 and 3						
5.	RF amp.	AM-generator 600 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	600 kHz	RF transformer T_{301}	Maximum
6.	Antenna circuit	AM-generator 600 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	600 kHz	Ferrite bar Antenna L_{001}	Maximum
7.	RF amp.	AM-generator 1400 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	1400 kHz	RF Trimmer TC_{302}	Maximum
8.	Antenna circuit	AM-generator 1400 kHz 400 Hz 30% Modulation	Antenna terminals	Oscilloscope and V.T.V.M. at output load	1400 kHz	Antenna circuit Trimmer TC_{301}	Maximum
9.	Reiterate 5, 6, 7, 8.						

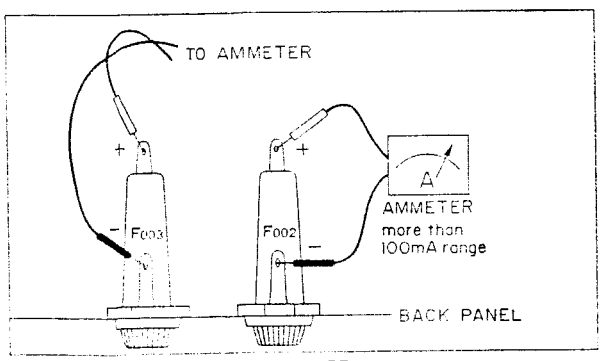
AM IF WAVE FORM



ALIGNMENT

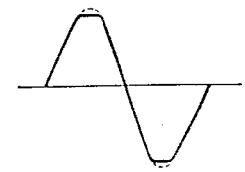
1. CURRENT ADJUSTMENT

STEP	SETTING OF AMMETER (TESTER)	WHAT TO DO	NOTE
1.		Remove F_{002} and F_{003}	Use an ammeter having 100mA range.
2.		Set VR_{802} (left and right channel) to minimum.	
3.		Set VR_{703} and VR_{704} (VOLUME) to mimimum.	
4.		Push the POWER switch ON.	Be sure to switch on 1st and then connect the ammeter.
5.	100mA range.	Connect the ammeter to F_{002} as illustrated in Fig. 1.	
6.		Turn VR_{802} (left channel) clockwise and adjust current to 20 to 26 mA.	
7.	100mA range.	Push the POWER switch OFF and attach F_{002} in place.	
8.		Push the POWER switch ON and connect the ammeter to F_{003} as illustrated in Fig. 1.	
9.		Turn VR_{802} (right channel) clockwise and adjust current to 20 to 26mA.	
10.		Attach F_{003} in place.	



(Fig. 1) QUICK-ACTING FUSE HOLDER

2. OUTPUT ADJUSTMENT

STEP	WHAT TO DO	NOTE
1.	Adjust the volume control to minimum.	
2.	Set an oscillator to 1,000 Hz and connect it to the LEFT AUX input.	The oscillator used should have the oscillation frequency of 20 to 20,000 Hz and the output voltage of more than 200mV.
3.	Set the SELECTOR switch to AUX.	Set other controls and switches as follows: BALANCE to CENTER TAPE MON to OFF MODE to STEREO TONE to CENTER Other to OFF
4.	Connect a 8- or 16-ohm load resistor having capacitor of more than 60 watts to the LEFT SPEAKER output.	
5.	Connect an oscilloscope to the SPEAKER terminal.	
6.	Push the POWER switch on and advance the volume little by little. Check the output at the terminal by means of the oscilloscope.	
7.	Adjust VR_{801} (left channel) so that the fronts of sine wave are clipped simultaneously.	
8.	Adjust the right channel as above.	

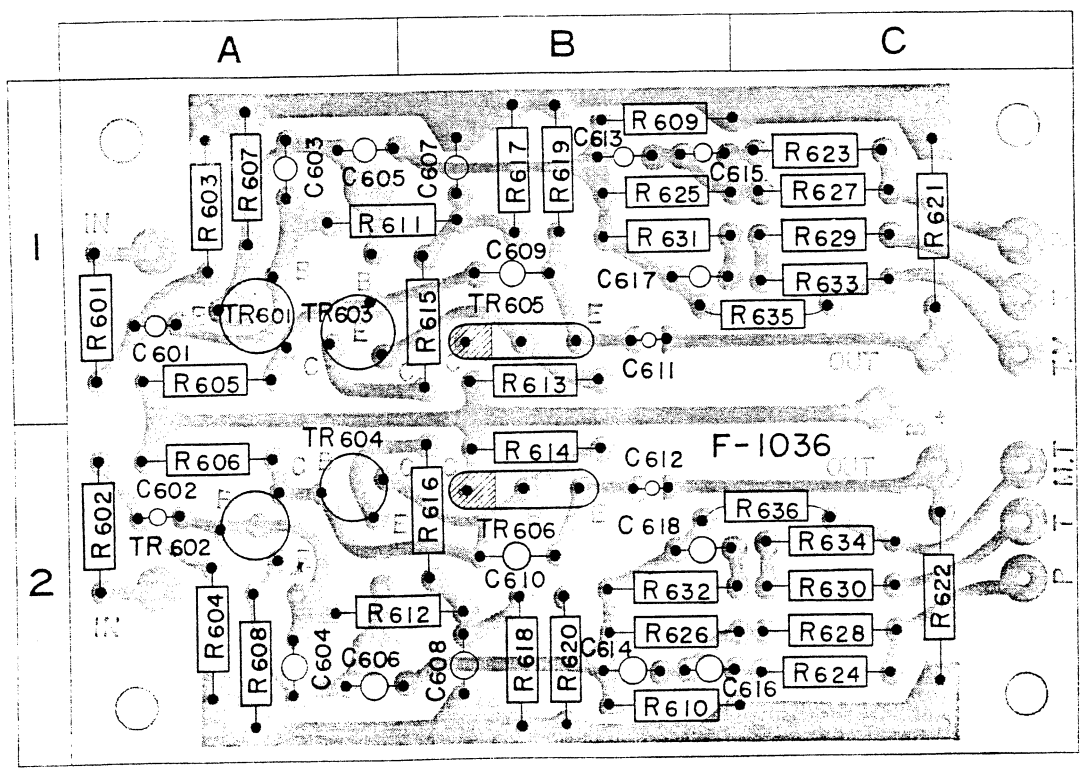
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

EQUALIZER AMP. 〈F-1036A〉

W	X	Y	Z
R601	1kΩ	0101102	1 A
R602	1kΩ	0101102	2 A
R603	680kΩ	0101684	1 A
R604	680kΩ	0101684	2 A
R605	220kΩ	0101224	1 A
R606	220kΩ	0101224	2 A
R607	1kΩ	0101102	1 A
R608	1kΩ	0101102	2 A
R609	470Ω	0101471	1 B
R610	470Ω	0101471	2 B
R611	270kΩ	0101274	1 A, B
R612	270kΩ	0101274	2 A, B
R613	33kΩ	0101333	1 B
R614	33kΩ	0101333	2 B
R615	680Ω ±10% ¼W CR.	0101681	1 B
R616	680Ω	0101681	2 B
R617	2.2kΩ	0101222	1 B
R618	2.2kΩ	0101222	2 B
R619	3.9kΩ	0101392	1 B
R620	3.9kΩ	0101392	2 B
R621	39kΩ	0101393	1 C
R622	39kΩ	0101393	2 C
R623	820Ω	0101821	1 C
R624	820Ω	0101821	2 C
R625	220kΩ	0101224	1 B
R626	220kΩ	0101224	2 B
R627	18kΩ	0101183	1 C
R628	18kΩ	0101183	2 C

W	X	Y	Z
R633	4.7kΩ ±10% ¼W CR.	0101472	1 C
R634	4.7kΩ	0101472	2 C
C601	1.5μF 16 V TC.	0572159	1 A
C602	1.5μF	0572159	2 A
C603	150pF ±10% 50 V CC.	0660151	1 A
C604	150pF	0660151	2 A
C605	220μF 6.3 V EC.	0510221	1 A
C606	220μF	0510221	2 A
C607	10μF 10 V EC.	0511100	1 B
C608	10μF	0511100	2 B
C609	30pF ±10% 50 V MiC.	0641300	1 B
C610	30pF	0641300	2 B
C611	10μF 25 V EC.	0513100	1 B
C612	10μF	0513100	2 B
C613	0.015μF	0601157	1 B
C614	0.015μF	0601157	2 B
C615	0.004μF ±10% 50 V MC.	0601406	1 B
C616	0.004μF	0601406	2 B
C617	0.0047μF	0601476	1 B
C618	0.0047μF	0601476	2 B
TR601	2SC632A-71, 81 (White)	0305766,8	1 A
TR602		0305766,8	2 A
TR603	2SC632A-71	0305761	1 A
TR604		0305761	2 A
TR605	2SC632A-81	0305762	1 B
TR606		0305762	2 B



PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

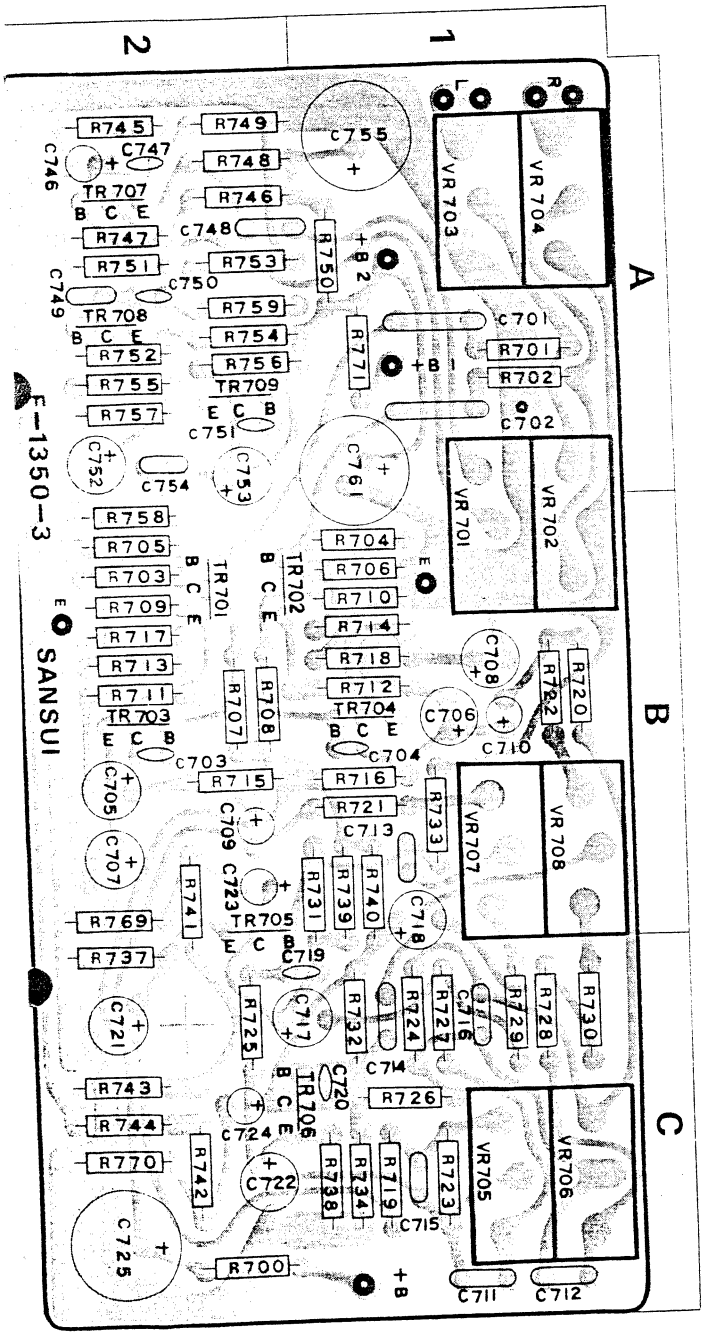
TONE, MIC ⟨F-1350-3⟩

W	X	Y	Z
R700	56Ω	0101560	2 C
R701	1kΩ	0101102	1 A
R702	1kΩ	0101102	1 A
R703	47kΩ	0101473	2 B
R704	47kΩ	0101473	1 B
R705	68kΩ	0101683	2 B
R706	68kΩ	0101683	1 B
R707	100kΩ	0101104	2 B
R708	100kΩ	0101104	2 B
R709	1kΩ	0101102	2 B
R710	1kΩ	0101102	1 B
R711	12kΩ	0101123	2 B
R712	12kΩ	0101123	1 B
R713	120kΩ	0101124	2 B
R714	120kΩ	0101124	1 B
R715	12kΩ	0101123	2 B
R716	12kΩ	0101123	1 B
R717	2.7kΩ	0101272	2 B
R718	2.7kΩ	0101272	1 B
R719	10kΩ	0101103	1 C
R720	10kΩ	0101103	1 B
R721	6.8kΩ	0101682	1 B
R722	6.8kΩ	0101682	1 B
R723	150kΩ	0101154	1 C
R724	150kΩ	0101154	1 C
R725	22kΩ	0101223	2 C
R726	22kΩ	0101223	1 C
R727	10kΩ	0101103	1 C
R728	10kΩ ±10% ¼W CR.	0101103	1 C
R729	6.8kΩ	0101682	1 C
R730	6.8kΩ	0101682	1 C
R731	470kΩ	0101474	2 B
R732	470kΩ	0101474	1 C
R733	150kΩ	0101154	1 B
R734	150kΩ	0101154	1 C
R737	560Ω	0101561	2 C
R738	560Ω	0101561	1, 2 C
R739	5.6kΩ	0101562	1 B
R740	5.6kΩ	0101562	1 B
R741	39kΩ	0101393	2 B
R742	39kΩ	0101393	2 C
R743	120kΩ	0101124	2 C
R744	120kΩ	0101124	2 C
R745	2.2kΩ	0101222	2 A
R746	330kΩ	0101334	2 A
R747	10kΩ	0101103	2 A
R748	68kΩ	0101683	2 A
R749	1kΩ	0101102	2 A
R750	1kΩ	0101102	1 A
R751	2.2kΩ	0101222	2 A
R752	150kΩ	0101154	2 A
R753	390Ω	0101391	2 A
R754	220kΩ	0101224	2 A
R755	220kΩ	0101224	2 A
R756	5.6kΩ	0101562	2 A
R757	680Ω	0101681	2 A
R758	1kΩ	0101102	2 B
R759	68kΩ	0101683	2 A

W	X	Y	Z
R769	47kΩ ±10% ¼W CR.	0101473	2 B
R770	47kΩ	0101473	2 C
C701	0.22μF ±10% 50 V MC.	0601228	1 A
C702	0.22μF	0601228	1 A
C703	22pF ± 5% 50 V CC.	0661220	2 B
C704	22pF	0661220	1 B
C705	33μF 16 V EC.	0512330	2 B
C706	33μF	0512330	1 B
C707	33μF	0512330	2 B
C708	33μF	0512330	1 B
C709	1μF 50 V EC.	0515109	2 B
C710	1μF	0515109	1 B
C711	0.04μF ±10% 50 V MC.	0601407	1 C
C712	0.04μF	0601407	1 C
C713	0.0015μF	0601156	1 B
C714	0.0015μF	0601156	1 C
C715	0.04μF	0601407	1 C
C716	0.04μF	0601407	1 C
C717	3.3μF 35 V EC.	0514339	2 C
C718	3.3μF	0514339	1 B
C719	100pF ±10% 50 V CC.	0650101	2 C
C720	100pF	0650101	1, 2 C
C721	33μF 16 V EC.	0512330	2 C
C722	33μF	0512330	2 C
C723	1μF 50 V EC.	0515109	2 B
C724	1μF	0515109	2 B
C725	220μF 25 V EC.	0513221	2 C
C746	1.5μF $^{+40}_{-20}$% 16 V TC.	0572159	2 A
C747	100pF ±10% 50 V CC.	0660101	2 A
C748	0.06μF ±10% 50 V MC.	0601607	2 A
C749	0.03μF	0601307	2 A
C750	100pF ±10% 50 V CC.	0660101	2 A
C751	100pF	0660101	2 A
C752	47μF 10 V EC.	0511470	2 A
C753	10μF 50 V EC.	0515100	2 A
C754	0.022μF ±10% 50 V MC.	0601227	2 A
C755	100μF 50 V EC.	0515101	1 A
VR701	30k(A) Mic. Control	1010210	1 B
VR702	250k(W) Balance Control		
VR703	250k(B) Volume Control	1010200	1 A
VR704	250k(B)		
VR705	100k(B) Bass Control	1020040	1 C
VR706	100k(B)		
VR707	100k(B) Treble Control	1020040	1 B
VR708	100k(B)		
TR701	2SC871 (F)	0305472	2 B
TR702		0305472	2 B
TR703		0305472	2 B
TR704		0305472	1 B
TR705		0305472	2 B
TR706		0305472	2 C
TR707		0305472	2 A
TR708	2SC871R (F)	0305475	2 A
TR709	2SC871F	0305472	2 A

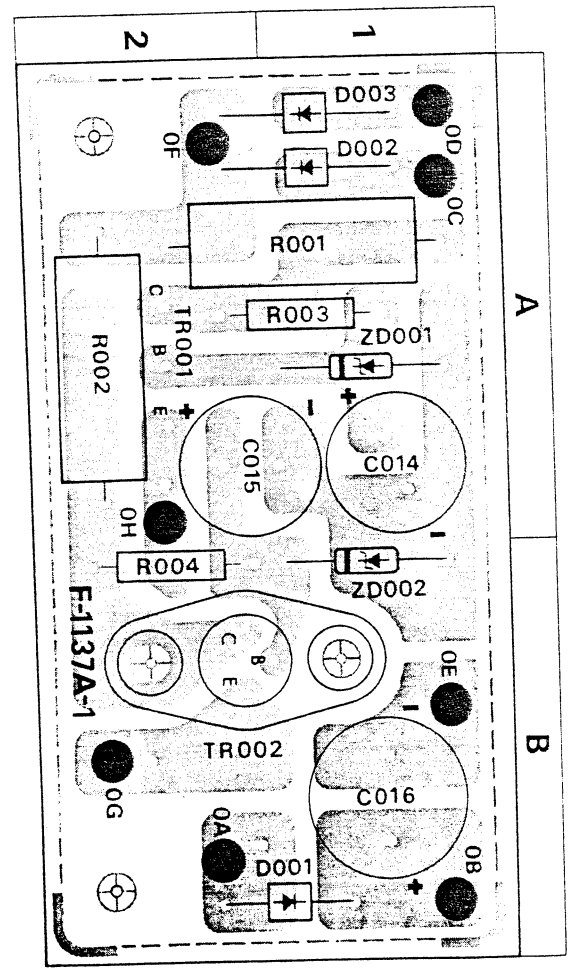
Abbreviations

CR :	Carbon Resistor	**MIC**:	Mica Capacitor
SR :	Solid Resistor	**OC** :	Oil Capacitor
CeR:	Cement Resistor	**CC** :	Ceramic Capacitor
MC :	Mylar Capacitor	**TC** :	Tantalum Capacitor
EC :	Electrolytic Capacitor		



RIPPLE FILTER 〈F-1137A-1〉

W	X	Y	Z
R001	10Ω ±10% 1W CR.	0104100	1 A
R002	180Ω ±10% 3W CeR.	0153181	2 A
R003	3.9kΩ ±10% ½W SR.	0111392	1 A
R004	1.5kΩ ±10% ½W SR.	0111152	2 B
C014	100μF 50 V EC.	0515101	1 A
C015	330μF 16 V EC.	0512331	2 A
C016	1000μF 10 V EC.	0511102	1 B
TR001	2SC696 (D, E, F)	0305193, 4, 5	2 A
TR002	2SD223 (O, Y, G)	0308230, 1, 2	1, 2 B
D001	S-05-02	0310780	1, 2 B
D002	S-05-02	0310780	1 A
D003	S-05-02	0310780	1 A
ZD001	ZBI-27	0310750	1 A
ZD002	ZBI-13	0310750	1 B

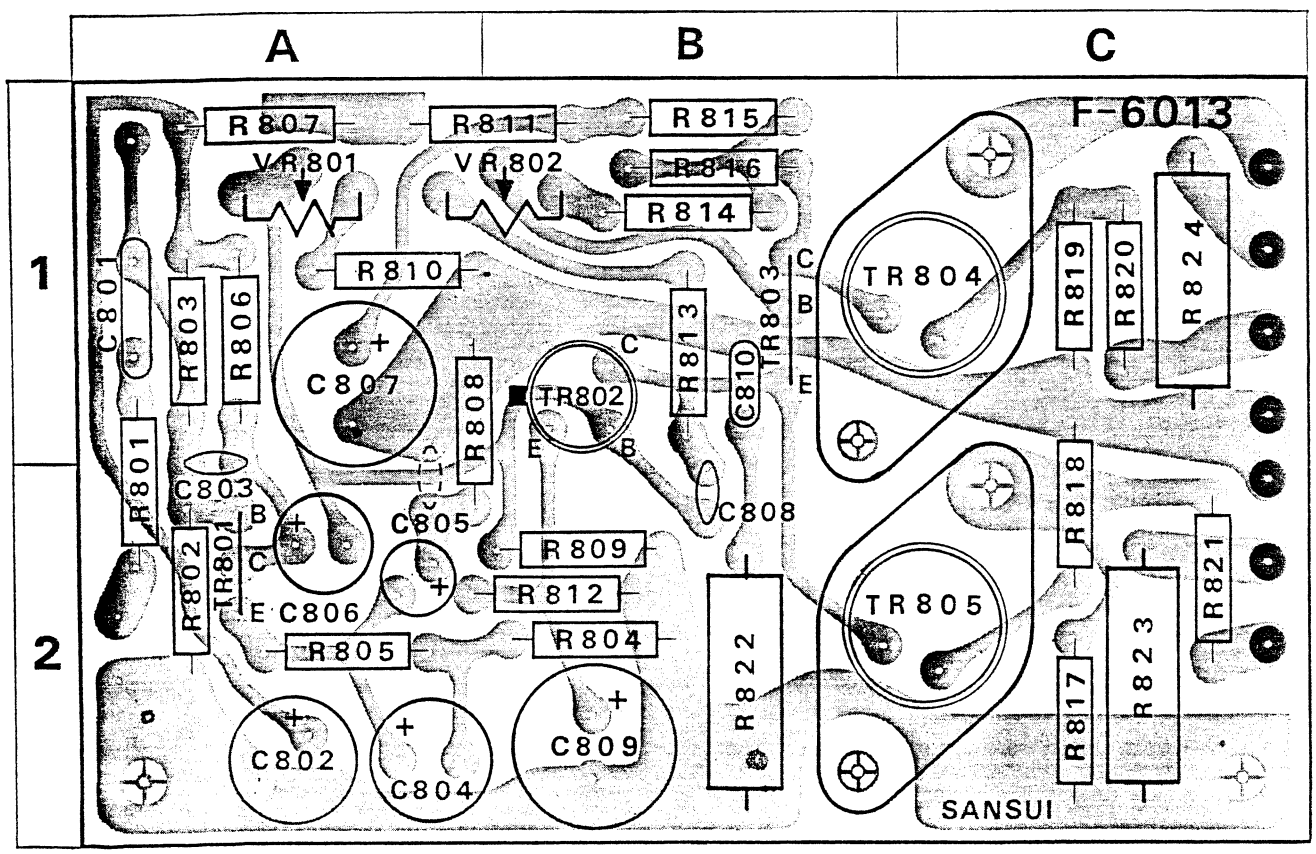


PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

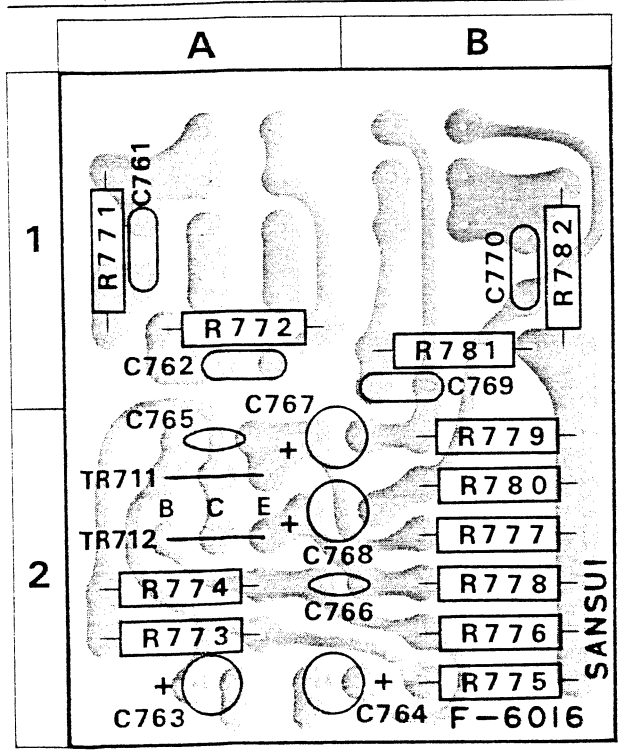
DRIVER AMP. BLOCK ⟨F-6013⟩

W	X	Y	Z
R801	10kΩ ± 10% ¼W CR.	0101103	1, 2 A
R802	270kΩ ± 10% ¼W CR.	0101274	2 A
R803	560kΩ ± 10% ¼W CR.	0101564	1 A
R804	100Ω ± 10% ¼W CR.	0101101	2 B
R805	2.2kΩ ± 10% ¼W CR.	0101222	2 A
R806	3.9kΩ ± 10% ¼W CR.	0101392	1 A
R807	33kΩ ± 10% ¼W CR.	0101333	1 A
R808	2.7kΩ ± 10% ¼W CR.	0101272	1 A
R809	10kΩ ± 10% ¼W CR.	0101103	2 B
R810	100kΩ ± 10% ¼W CR.	0101104	1 A
R811	680Ω ± 10% ½W SR.	0111681	1 A, B
R812	220Ω ± 10% ¼W CR.	0101221	2 B
R813	1.5kΩ ± 10% ¼W CR.	0101152	1 B
R814	3.3kΩ ± 10% ¼W CR.	0101332	1 B
R815	6.8kΩ ± 10% ½W SR.	0111682	1 B
R816	39Ω ± 10% ¼W CR.	0101390	1 B
R817	220Ω ± 10% ½W SR.	0111221	2 C
R818	10Ω ± 10% ½W SR.	0111100	2 C
R819	220Ω ± 10% ½W SR.	0111221	1 C
R820	6.8Ω ± 10% ½W SR.	0111689	1 C
R821	6.8Ω ± 10% ½W SR.	0111689	2 C
R822	4.7Ω ± 10% 2W CeR.	0152479	2 B
R823	0.3Ω ± 10% 2W CeR.	0152308	2 C
R824	0.3Ω ± 10% 2W CeR.	0152308	1 C
VR801	100kΩ (B) AC. Balance Adj.	1031140	1 A
VR802	1kΩ (B) Bias Adj.	1031050	1 A, B
C801	0.33μF ± 10% 50 V MC.	0601338	1 A
C802	100μF 25 V EC.	0513101	2 A
C803	100pF ± 10% 50 V CC.	0660101	1, 2 A
C804	220μF 6.3 V EC.	0510221	2 A
C805	4.7μF 50 V EC.	0515479	2 A
C806	3.3μF 25 V AEC.	0563339	2 A
C807	100μF 50 V EC.	0515101	1 A
C808	100pF ± 10% 50 V CC.	0660101	2 B
C809	470μF 6.3 V EC.	0510471	2 B
C810	0.1μF ± 10% 50 V MC.	0601108	1 B
TR801	2SC 984 (B, C)	0305871, 2	2 A
TR802	2SC 627 (3)	0305582	1 B
TR803	2SC 984 (B, C)	0305871, 2	1 B
TR804	2SC 680 (B, C)	0305621, 2	2 B, C
TR805	2SA 566 (B, C)	0300151, 2	2 B, C



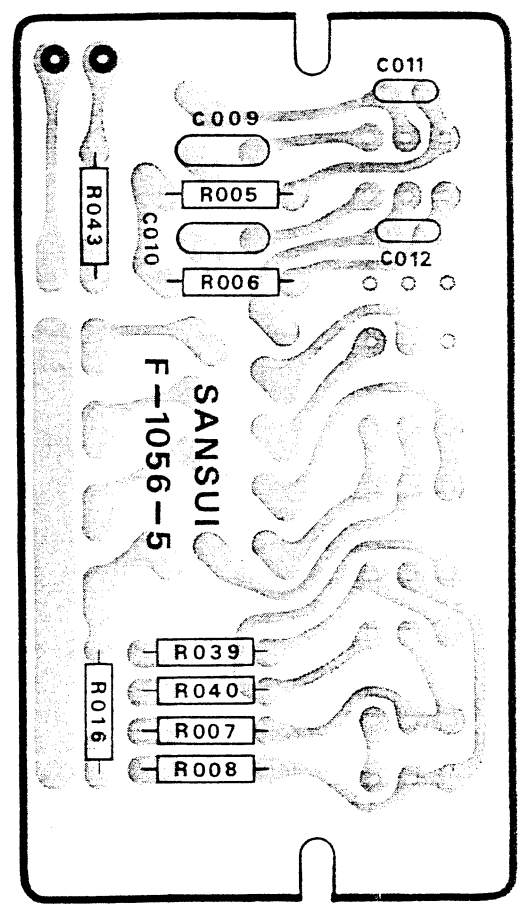
FILTER BLOCK ⟨F-6016⟩

W	X	Y	Z
R771	470kΩ	0101474	1 A
R772	470kΩ	0101474	1 A
R773	220kΩ	0101224	2 A
R774	220kΩ	0101224	2 A
R775	270kΩ	0101274	2 B
R776	270kΩ	0101274	2 B
R777	3.9kΩ	0101392	2 B
R778	3.9kΩ	0101392	2 B
R779	68kΩ	0101683	2 B
R780	68kΩ	0101683	2 B
R781	100kΩ	0101104	1 B
R782	100kΩ	0101104	1 B
	±10% 1/4W CR.		
C761	0.0033μF	0601336	1 A
C762	0.0033μF	0601336	1 A
C763	1μF	0515109	2 A
C764	1μF	0515109	2 A, B
C765	470pF	0660471	2 A
C766	470pF	0660471	2 A, B
C767	1μF	0515109	2 A, B
C768	1μF	0515109	2 A, B
C769	0.008μF	0601806	1 B
C770	0.008μF	0601806	1 B
	±10% 50 V MC. / 50 V EC. / 50 V CC.		
TR711	2SC871R (E, F)	0305474, 5	2 A
TR712	2SC871R (E, F)	0305474, 5	2 A
S8	High Filter Switch	1130210	
S9	Low Filter Switch	1130210	



ACCESSORY CIRCUIT ⟨F-1056-5⟩

W	X	Y	Z
R005	27kΩ	0101273	
R006	27kΩ	0101273	
R007	8.2kΩ	0101822	
R008	8.2kΩ	0101822	
R016	18Ω	0101180	
R039	4.7kΩ	0101472	
R040	4.7kΩ	0101472	
R043	12Ω	0101120	
	±10% 1/4W CR.		
C009	200pF	0641201	
C010	200pF	0641201	
	±10% 50 V MiC.		
C011	0.01μF	0601107	
C012	0.01μF	0601107	
	±10% 50 V MC.		
S1	Muting Switch	1130200	
S2	FM Stereo Only Switch	1130200	
S5	Reverse Switch	1130200	
S6	Mono Switch	1130200	
S7	Loudness Switch	1130200	



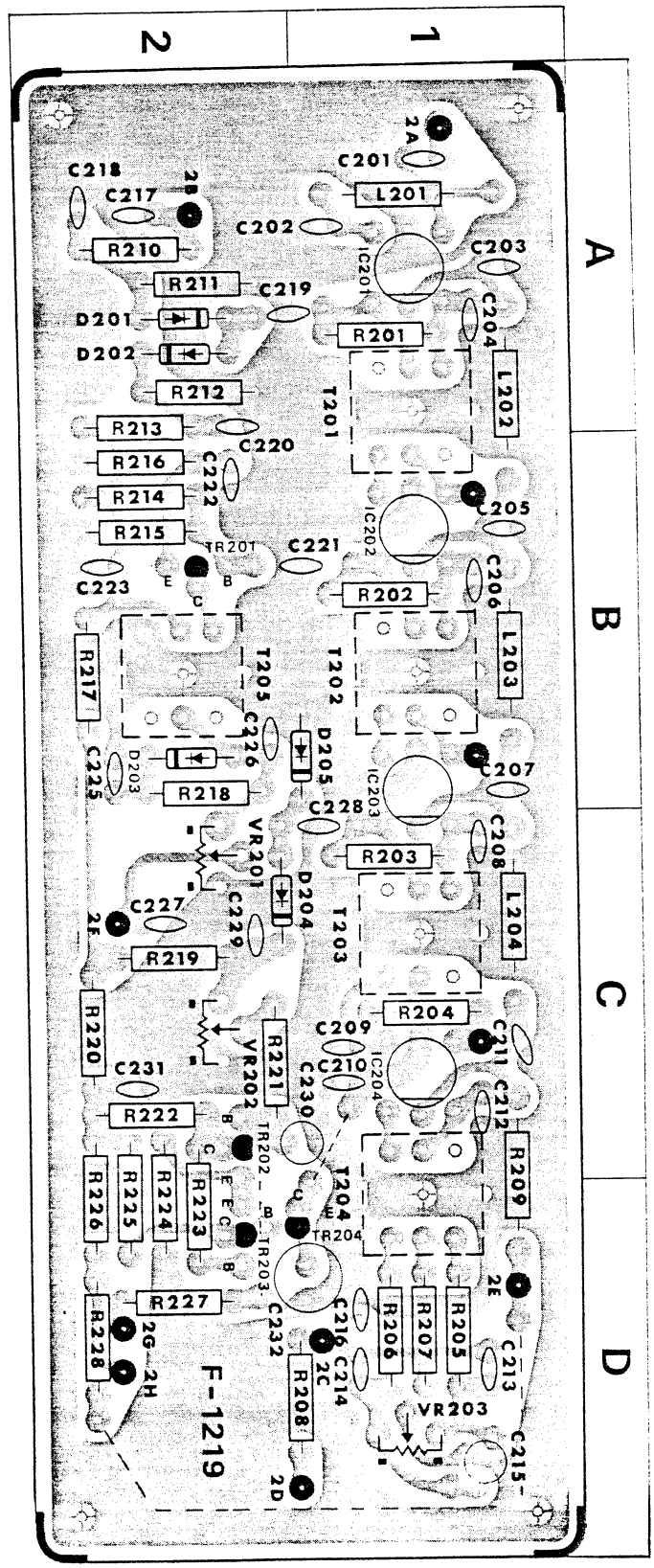
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

FM IF ⟨F-1219⟩

W	X	Y	Z
R201	15kΩ	0101153	1 A
R202	15kΩ	0101153	1 B
R203	15kΩ	0101153	1 C
R204	68Ω	0101680	1 C
R205	1kΩ	0101102	1 D
R206	1kΩ	0101102	1 D
R207	56Ω	0101560	1 D
R208	22kΩ	0101223	2 D
R210	100kΩ	0101104	2 A
R211	220kΩ	0101224	2 A
R212	3.9kΩ	0101392	2 A
R213	68kΩ	0101683	2 A
R214	22kΩ	0101223	2 B
R215	10kΩ ±10% ¼W CR.	0101103	2 B
R216	1kΩ	0101102	2 B
R217	22Ω	0101220	2 B
R218	2.2kΩ	0101222	2 B
R219	1MΩ	0101105	2 C
R220	4.7Ω	0101479	2 C
R221	47kΩ	0101473	2 C
R222	6.8kΩ	0101682	2 C
R223	2.7kΩ	0101272	2 C, D
R224	150Ω	0101151	2 C, D
R225	6.8kΩ	0101682	2 C, D
R226	22Ω	0101220	2 C, D
R227	100kΩ	0101104	2 D
R228	22Ω	0101220	2 D
C201	0.001μF	0656102	1 A
C202	0.022μF	0656223	1 A
C203	0.022μF	0656223	1 A
C204	0.022μF	0656223	1 A
C205	0.022μF	0656223	1 B
C206	0.022μF +80%/−20% 25 V CC.	0656223	1 B
C207	0.022μF	0656223	1 B
C208	0.022μF	0656223	1 C
C209	0.022μF	0656223	1 C
C210	0.022μF	0656223	1 C
C211	0.022μF	0656223	1 C
C212	0.022μF	0656223	1 C
C213	220pF ±10% 50 V CC.	0660221	1 D
C214	220pF	0660221	1 D
C215	10μF 10 V EC.	0511100	1 D
C216	47pF ±10% 50 V CC.	0660470	1 D
C217	0.047μF +80%/−20% 50 V CC.	0656473	2 A
C218	0.022μF	0656223	2 A
C219	4.7pF ±10% 50 V CC.	0660479	1, 2 A
C220	0.022μF +80%/−20% 25 V CC.	0656223	2 A
C221	2.2pF ±10% 50 V CC.	0660229	1, 2 B
C222	0.022μF	0656223	2 B
C223	0.022μF	0656223	2 B
C225	0.022μF +80%/−20% 50 V CC.	0656223	2 B
C226	0.022μF	0656223	2 B
C227	0.047μF	0656473	2 C
C228	2.2pF ±10% 50 V CC.	0660229	1, 2 C
C229	0.022μF +80%/−20% 25 V CC.	0656223	2 C

W	X	Y	Z
C230	1μF 50 V EC.	0515109	1, 2 C
C231	0.022μF +80%/−20% 25 V CC.	0656223	2 C
C232	33μF 16 V EC.	0512330	1, 2 D
C242	100μF	0512101	2 D
TR201	2SC380(O) or 2SC460(B, C)	0305330 0305350, 1	2 B
TR202	2SC828(T)	0305270	2 C
TR203		0305270	2 D
TR204		0305270	1, 2 D
IC201	μPC555A	0360070	1 A
IC202		0360070	1 B
IC203		0360070	1 B
IC204		0360070	1 C
D201	IN60	0310331	2 A
D202		0310331	2 A
D203		0310331	2 B
D204		0310331	2 C
D205		0310331	1, 2 B
T201	FM IF 10.7MHz	4235470	1 A, B
T202	FM IF 10.7MHz	4235480	1 B
T203	FM IF 10.7MHz	4235490	1 C
T204	FM Detector Transformer	4235180	1 C, D
T205	FM Meter Transformer	4235290	2 B
L201	18μH	4290090	1 A
L202	3.5μH	4290011	1 A
L203		4290011	1 B
L204		4290011	1 C
L205		4290011	
VR201	50kΩ(B) Signal Meter Adj.	1030200	2 C
VR202	100kΩ(B) Muting Adj.	1030340	2 C
VR203	20kΩ(B) Tune Meter Adj.	1030460	1 D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C204
D201
D202
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R213
C220
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C222
C205
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IC202
R215
TR201
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C213
2G
2H
R228
C232
2C
R208
VR203
C215
2D
F-1219

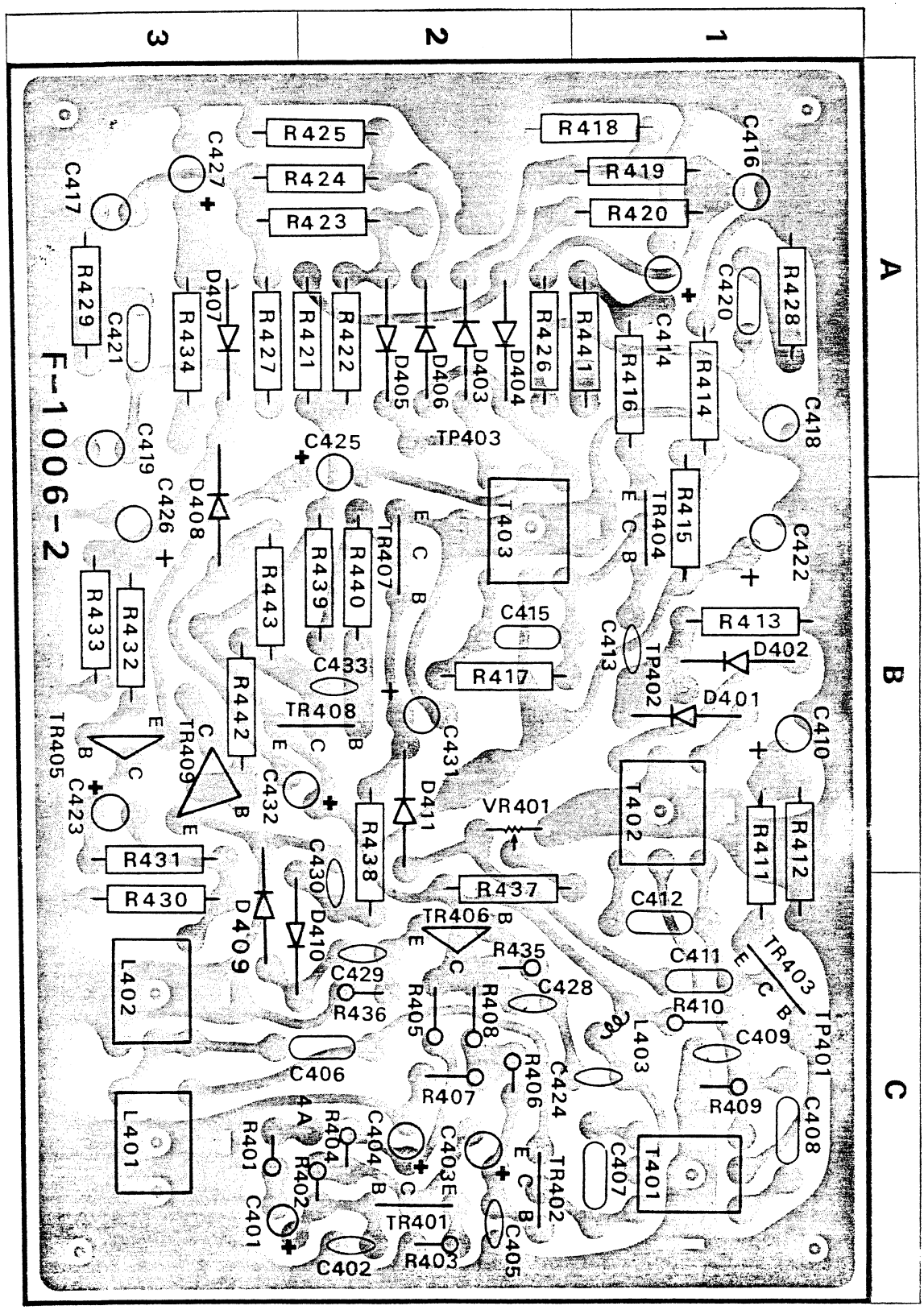
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

FM MPX. ⟨F-1006-2⟩

W	X	Y	Z
R401	1kΩ	0100102	3 C
R402	330kΩ	0100334	2 C
R403	1kΩ	0100102	2 C
R404	2.2kΩ	0100222	2 C
R405	4.7kΩ	0100472	2 C
R406	47kΩ	0100473	2 C
R407	100kΩ	0100104	1, 2 C
R408	120kΩ	0100124	1 C
R409	27kΩ	0100273	1 C
R410	330kΩ	0100334	1 C
R411	330Ω	0101331	1 B, C
R412	1.2kΩ	0101122	1 B, C
R413	10kΩ	0101103	1 B
R414	27kΩ	0101273	1 A
R415	270kΩ	0101274	1 A, B
R416	680Ω	0101681	1 A
R417	150kΩ	0101154	2 B
R418	330kΩ	0101334	1, 2 A
R419	8.2kΩ	0101822	1 A
R420	8.2kΩ	0101822	1 A
R421	330kΩ	0101334	2 A
R422	330kΩ ±10% ¼W CR.	0101334	2 A
R423	8.2kΩ	0101822	2, 3 A
R424	8.2kΩ	0101822	2, 3 A
R425	330kΩ	0101334	2, 3 A
R426	56kΩ	0101563	2 A
R427	56kΩ	0101563	3 A
R428	15kΩ	0101153	1 A
R429	15kΩ	0101153	3 A
R430	1.5kΩ	0101152	3 C
R431	39kΩ	0101393	3 B
R432	22kΩ	0101223	3 B
R433	100kΩ	0101104	3 B
R434	15kΩ	0101153	3 A
R435	820kΩ	0100824	2 C
R436	10kΩ	0100103	2 C
R437	180kΩ	0101184	2 C
R438	56kΩ	0101563	2 B, C
R439	10kΩ	0101103	2 B
R440	22kΩ	0101223	2 B
R441	1.2kΩ	0101122	1 A
R442	5.6kΩ	0101562	3 B
R443	10kΩ	0101103	3 B
R444	150kΩ	0101154	
VR401	200kΩ(B) Stereo Indicator Adj.	1030350	2 B
C401	3.3μF 25 V EC.	0513339	3 C
C402	100pF ±10% 50 V CC.	0660101	2 C
C403	10μF 25 V EC.	0513100	2 C
C404	33μF 25 V EC.	0513330	2 C
C405	47pF ±10% 50 V CC.	0660470	2 C
C406	2800pF ±10% 50 V MiC.	0640282	2, 3 C
C407	6800pF ±10% 50 V MiC.	0640682	1 C
C408	6800pF ±10% 50 V MiC.	0640682	1 C
C409	0.05μF ±10% 50 V MC.	0601507	1 C
C410	1μF 50 V EC.	0515109	1 B
C411	0.002μF ±10% 50 V MC.	0601206	1 C

W	X	Y	Z
C412	6800pF ± 5% 50 V MiC.	0640682	1 C
C413	0.05μF ±10% 50 V MC.	0601507	1 B
C414	1μF 50 V EC.	0515109	1 A
C415	1700pF ± 5% 50 V MiC.	0640172	2 B
C416	1000pF ± 5% 50 V SC.	0621102	1 A
C417	1000pF ± 5% 50 V SC.	0621102	3 A
C418	6800pF ± 5% 50 V SC.	0621682	1 A
C419	6800pF ± 5% 50 V SC.	0621682	3 A
C420	0.15μF ±10% 50 V MC.	0601158	1 A
C421	0.15μF ±10% 50 V MC.	0601158	3 A
C422	220μF 25 V EC.	0513221	1 B
C423	10μF 25 V EC.	0513100	3 B
C424	0.005μF ±10% 50 V MC.	0601506	1, 2 C
C425	10μF 25 V BPEC.	0533101	2 A, B
C426	3.3μF 25 V EC.	0513339	3 B
C427	33μF 25 V EC.	0513330	3 A
C428	100pF ±10% 50 V CC.	0660101	2 C
C429	0.05μF ±10% 50 V MC.	0601507	2 C
C430	0.005μF ±10% 50 V MC.	0601506	2 B, C
C431	1μF 50 V EC.	0515109	1, 2 B
C432	3.3μF 25 V EC.	0513339	3 B
C433	0.03μF ±10% 50 V MC.	0601307	2 B
TR401	2SC458 (B)	0305111	2 C
TR402	2SC536V$_1$ E$_2$	0305245	2 C
TR403	2SC536V$_1$ E$_2$	0305245	1 C
TR404	2SC536V$_1$ E$_2$	0305245	1 B
TR405	2SC536V$_1$ G$_1$	0305248	3 B
TR406	2SC536V$_1$ F$_2$	0305247	2 C
TR407	2SC373	0305040	2 B
TR408	2SA564A (P, Q)	0300080, 1	2, 3 B
TR409	2SC696A (A, B, D, E) or 2SC971 (2)	0305680, 1, 3, 4 0305530	3 B
D401	IN34A	0310400	1 B
D402	IN34A	0310400	1 B
D403	IN34A (Y)	0310401	2 A
D404	IN34A (Y)	0310401	2 A
D405	IN34A (Y)	0310401	2 A
D406	IN34A (Y)	0310401	2 A
D407	IN34A	0310400	3 A
D408	IN34A	0310400	3 A, B
D409	IN34A	0310400	3 B, C
D410	IN34A	0310400	3 C
D411	IN34A	0310400	2 B
T401	19kHz Tuning Trap	4240210	1 C
T402	19kHz Tuning Trap	4240220	1 B
T403	38kHz Tuning Trap	4240220	2 B
L401	67kHz Filter	4240380	3 C
L402	71kHz Filter	4240250	3 C
L403	19kHz Filter	4900030	1 C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2
3
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R423
R418
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R420
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R429
C421
R434
D407
R427
R421
R422
D405
D406
D403
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R426
R441
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R414
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R428
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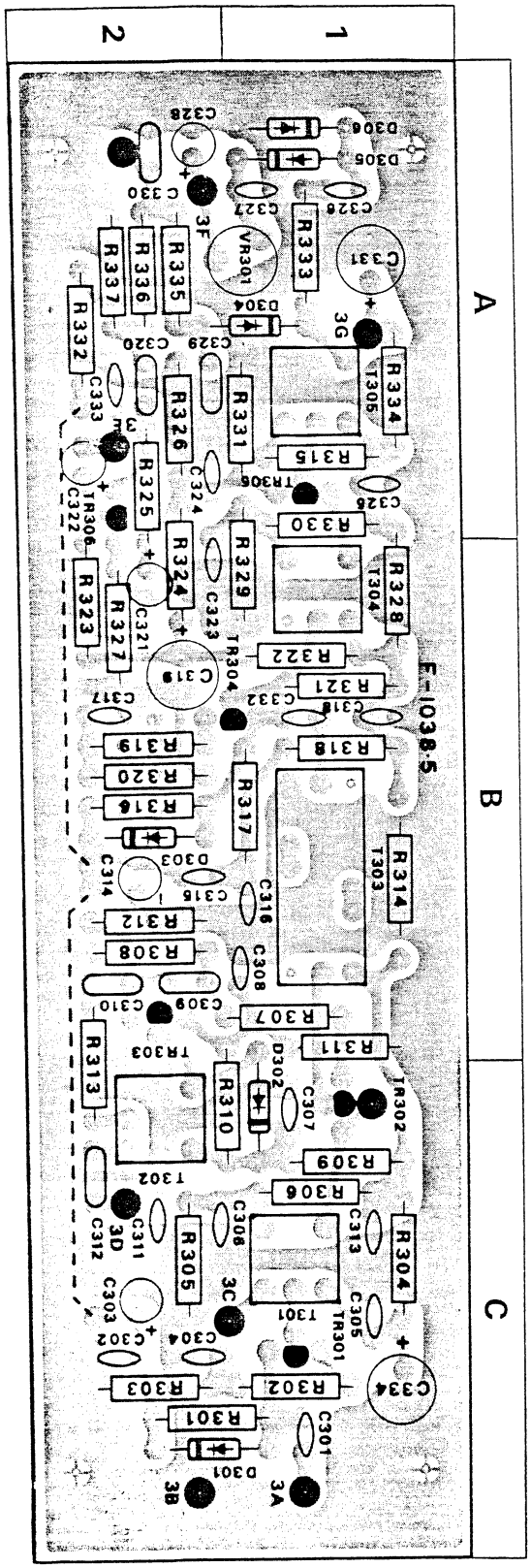
D411
VR401
R431
R430
R438
R437
C430
D410
D409
C412
TR406
R435
C411
TR403
C428
R410
C409
TP401
L402
C429
R436
R405
R408
R407
L403
R406
C424
C408
C406
R409
T401
C407
L401
R404
C404
C403
TR402
R401
C401
R402
TR401
C405
C402
R403

PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

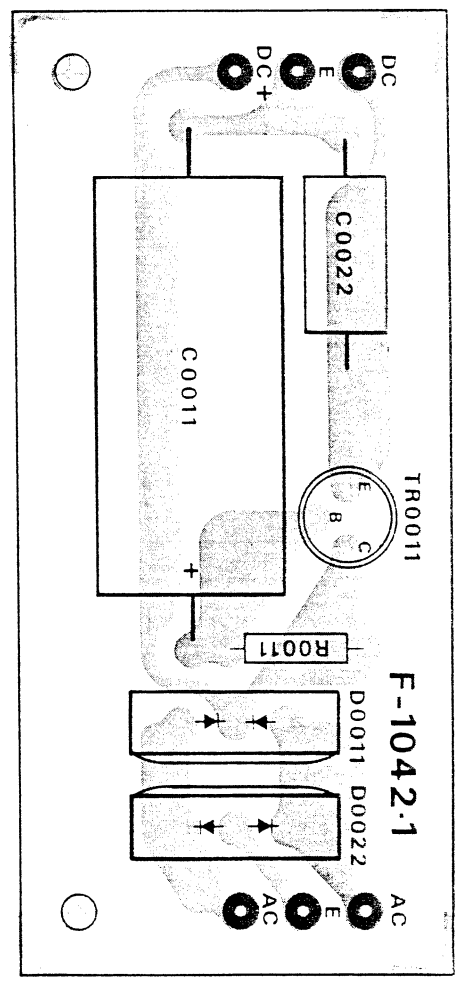
AM IF ⟨F-1038-5⟩

W	X	Y	Z
R301	10kΩ }	0101103	1, 2 C
R302	39Ω }	0101390	1 C
R303	1kΩ }	0101102	2 C
R304	100Ω }	0101101	1 C
R305	3.9kΩ }	0101392	2 C
R306	33kΩ }	0101333	1 C
R207	22Ω }	0101220	1, 2 B
R308	1kΩ }	0101102	2 B
R309	100Ω }	0101101	1 C
R310	22kΩ }	0101223	2 B, C
R311	3.9kΩ }	0101392	1 B
R312	1kΩ }	0101102	2 B
R313	10Ω }	0101100	2 B, C
R314	22Ω }	0101220	1 B
R315	100kΩ }	0101104	1 A
R316	10kΩ } ±10% ¼W CR.	0101103	2 B
R317	47kΩ }	0101473	1 B
R318	100Ω }	0101101	1 B
R319	22Ω }	0101220	2 B
R320	1kΩ }	0101102	2 B
R325	100kΩ }	0101104	2 A, B
R328	22Ω }	0101220	1 A, B
R329	4.7kΩ }	0101472	1 A, B
R330	22kΩ }	0101223	1 A
R331	470Ω }	0101471	1 A
R332	4.7kΩ }	0101472	2 A
R333	470Ω }	0101471	1 A
R334	22Ω }	0101220	1 A
R335	1kΩ }	0101102	2 A
R336	100Ω }	0101101	2 A
R337	4.7kΩ }	0101472	2 A
R338	3.9kΩ }	0101392	
VR301	10kΩ(B) Signal Meter Adj.	1035130	1, 2 A
C301	0.022μF } +80 −20% 25 V CC.	0656223	1 C
C302	0.039μF }	0656393	2 C
C303	3.3μF 25 V EC.	0513339	2 C
C304	0.022μF }	0656223	2 C
C305	0.039μF }	0656393	1 C
C306	0.039μF } +80 −20% 25 V CC.	0656393	2 C
C307	0.039μF }	0656393	1 C
C308	0.022μF }	0656223	1 B
C309	0.01μF } ± 5% 50 V MC.	0600107	2 B
C310	0.01μF }	0600107	2 B
C311	22pF ±10% 50 V CC.	0660220	2 C
C312	430pF ± 5% 50 V MiC.	0640431	2 C
C313	0.022μF +80 −20% 25 V CC.	0656223	1 C
C314	4.7μF 16 V EC.	0512479	2 B
C315	0.022μF }	0656223	2 B
C316	0.022μF } +80 −20% 25 V CC.	0656223	1 B
C317	0.039μF }	0656393	2 B
C318	0.022μF }	0656223	1 B
C320	0.0068μF ±10% 50 V MC.	0601686	2 A
C323	0.039μF }	0656393	2 B
C324	0.039μF } +80 −20% 25 V CC.	0656393	2 A
C325	0.022μF }	0656223	1 A
C326	0.022μF } +80 −20% 25 V CC.	0656223	1 A
C327	0.022μF }	0656223	1 A
C328	47μF 16 V EC.	0512100	2 A
C329	0.012μF } ±10% 50 V MC.	0601127	2 A
C330	0.015μF }	0601157	2 A
C331	100μF 16 V EC.	0512101	1 A
C332	0.022μF } +80 −20% 25 V CC.	0656223	1 B
C333	0.039μF }	0656393	2 A
C334	33μF 16 V EC.	0512330	1 C
D301	IN60	0310330	1, 2 C
D302	DS-410	0340030	1 B, C
D303	DS-410	0340030	2 B
D304	IN60	0310330	1, 2 A
D305	IN60	0310330	1 A
D306	IN60	0310330	1 A
TR301	2SC380 (O)	0305331	1 C
TR302	2SC380 (O)	0305331	1 C
TR303	2SC380 (O)	0305331	2 B
TR304	2SC380 (R)	0305330	1, 2 B
TR305	2SC380 (R)	0305330	1 A
T301	AM RF	4210100	1 C
T302	AM OSC	4220300	2 C
T303	Ceramic Filter	4230440	1 B
T304	AM IFT 455kHz	4230480	1 B
T305	AM IFT 455kHz	4230470	1 A



DIODES STACK ⟨F-1042-1⟩

W	X	Y	Z
R0011	3.3kΩ ±10% ¼W CR.	0101332	
C0011	100μF 100V EC.	0507101	
C0022	0.01μF 400V OC.	0590107	
TR0011	2SC627 (2, 3)	0305581, 2	
D0011	ESAC02-03C	0310900	
D0022	ESAC02-03N	0310910	



TAPE MONITOR SW ⟨F-1052-2⟩

W	X	Y	Z
S3	Tape Monitor 1 Switch	1130210	
S4	Tape Monitor 2 Switch		

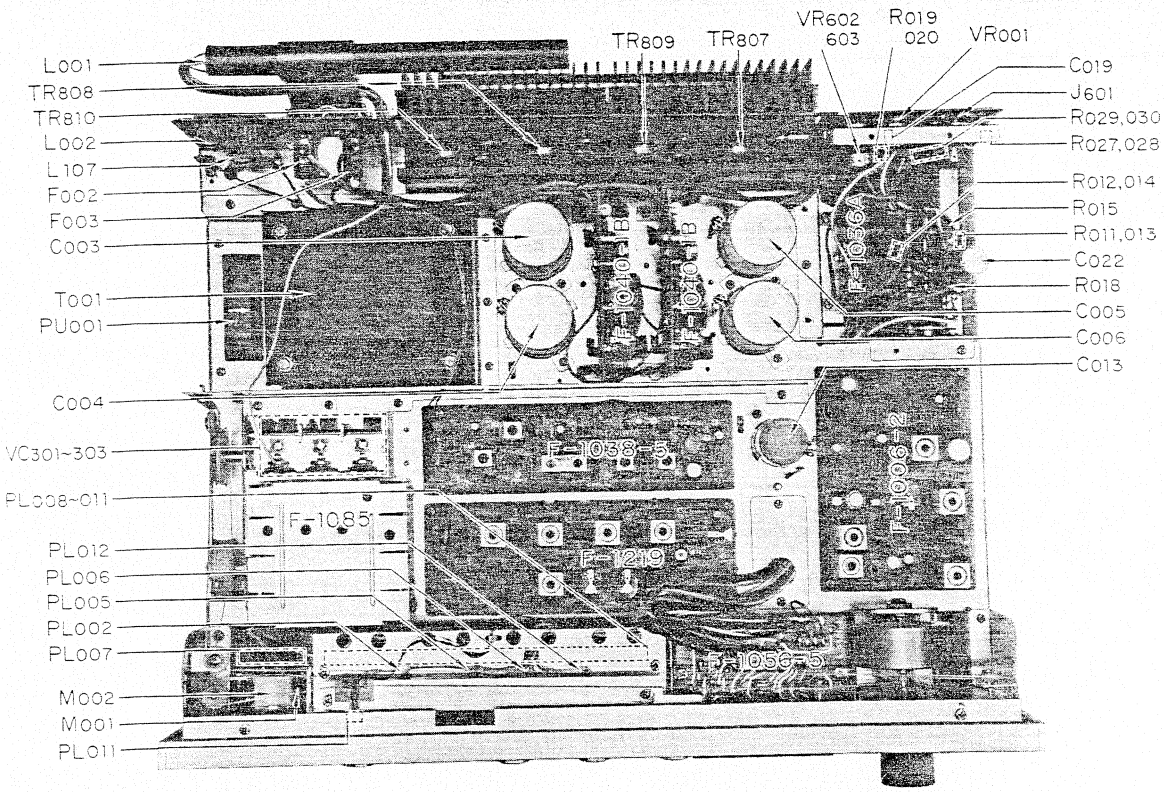
OTHER PARTS AND THEIR POSITION ON CHASSIS

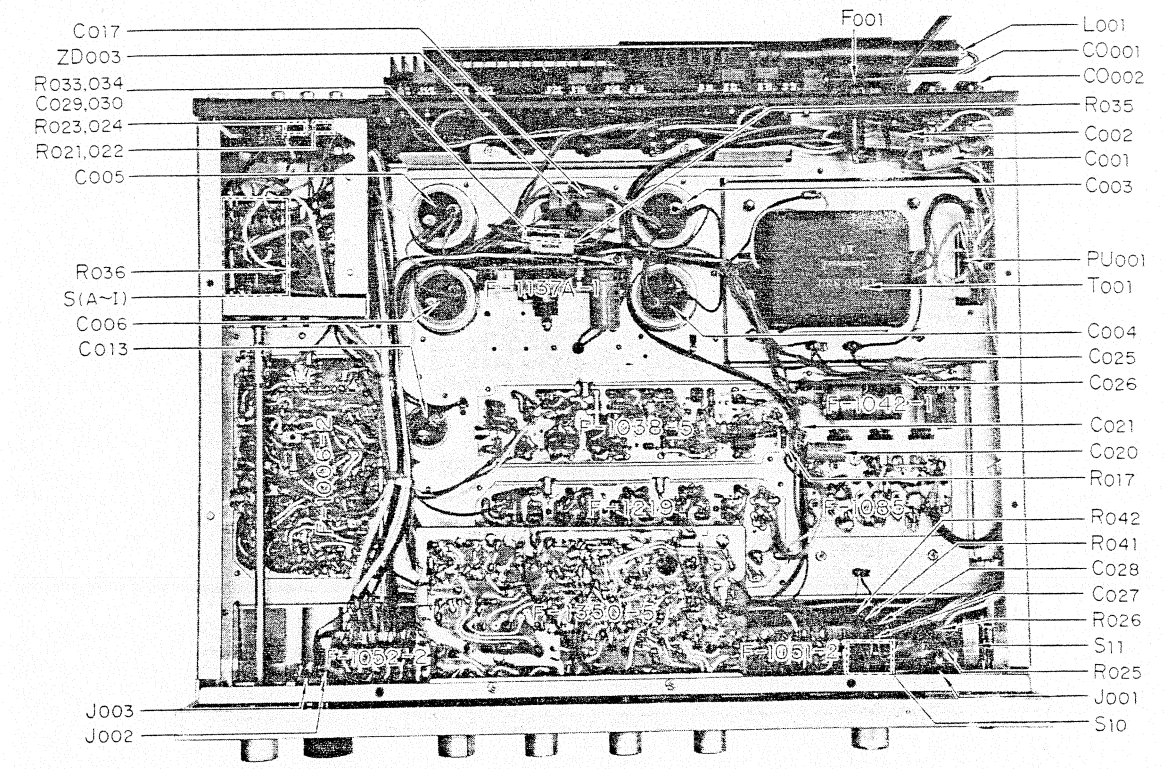
W: Parts No. **X:** Parts Name **Y:** Stock No.

W	X	Y
R011	150kΩ }	0101154
R012	150kΩ	0101154
R013	15kΩ	0101153
R014	15kΩ	0101153
R015	22kΩ	0101223
R017	47Ω	0101470
R018	220Ω } ±10% ¼W CR.	0101221
R019	22kΩ	0101223
R020	22kΩ	0101223
R021	68kΩ	0101683
R022	68kΩ	0101683
R023	68kΩ	0101683
R024	68kΩ }	0101683
R025	680Ω } ±10% 1W MFR.	0171681
R026	680Ω }	0171681
R027	100kΩ } ±10% ¼W CR.	0101104
R028	100kΩ }	0101104
R029	470kΩ } ±10Ω ½W CR.	0103474
R030	470kΩ }	0103474
R033	18kΩ } ±10% ¼W CR.	0101183
R034	18kΩ }	0101183
R035	680Ω ±10% 3W CeR.	0163681
R036	150Ω }	0101151
R037	100Ω } ±10% ¼W CR.	0101101
R041	10Ω }	0101100
R042	10Ω }	0101100
VR001	2kΩ (B) Separation Adjust	1005060
VR602,603	50kΩ (B)×2 Level Adjust	1015010
C001	0.022μF } ±20% 600V OC.	0591227
C002	0.0047μF }	0591476
C003	1500μF } 90 V EC.	0559824
C004	1500μF }	0559824
C005	2200μF } 80 V EC.	0559821
C006	2200μF }	0559821
C013	1000μF 50 V EC.	0559302
C017	330μF 16 V EC.	0512331
C019	0.002μF ±10% 50 V MC.	0601206
C020	220μF 16 V EC.	0512221
C021	0.04μF $^{+100}_{-0}$% 50 V CC.	0650403
C022	1000μF 25 V EC.	0513102
C025	0.01μF } ±20% 400V OC.	0590107
C026	0.01μF }	0550107
C027	0.047μF } ±10% 50 V MC.	0601477
C028	0.047μF }	0601477
C029	68pF } ±10% 50 V CC.	0660680
C030	68pF }	0660680
VC301~303	3 Gong AM. Variable Capacitor	1200020
TR807	}	0305781, 2
		0305841, 2
TR808		0305781, 2
		0305841, 2
TR809	2SC1079 (Y,BL) or 2SC1116 (O,Y)	0305781, 2
		0305841, 2
TR810		0305781, 2
		0305841, 2

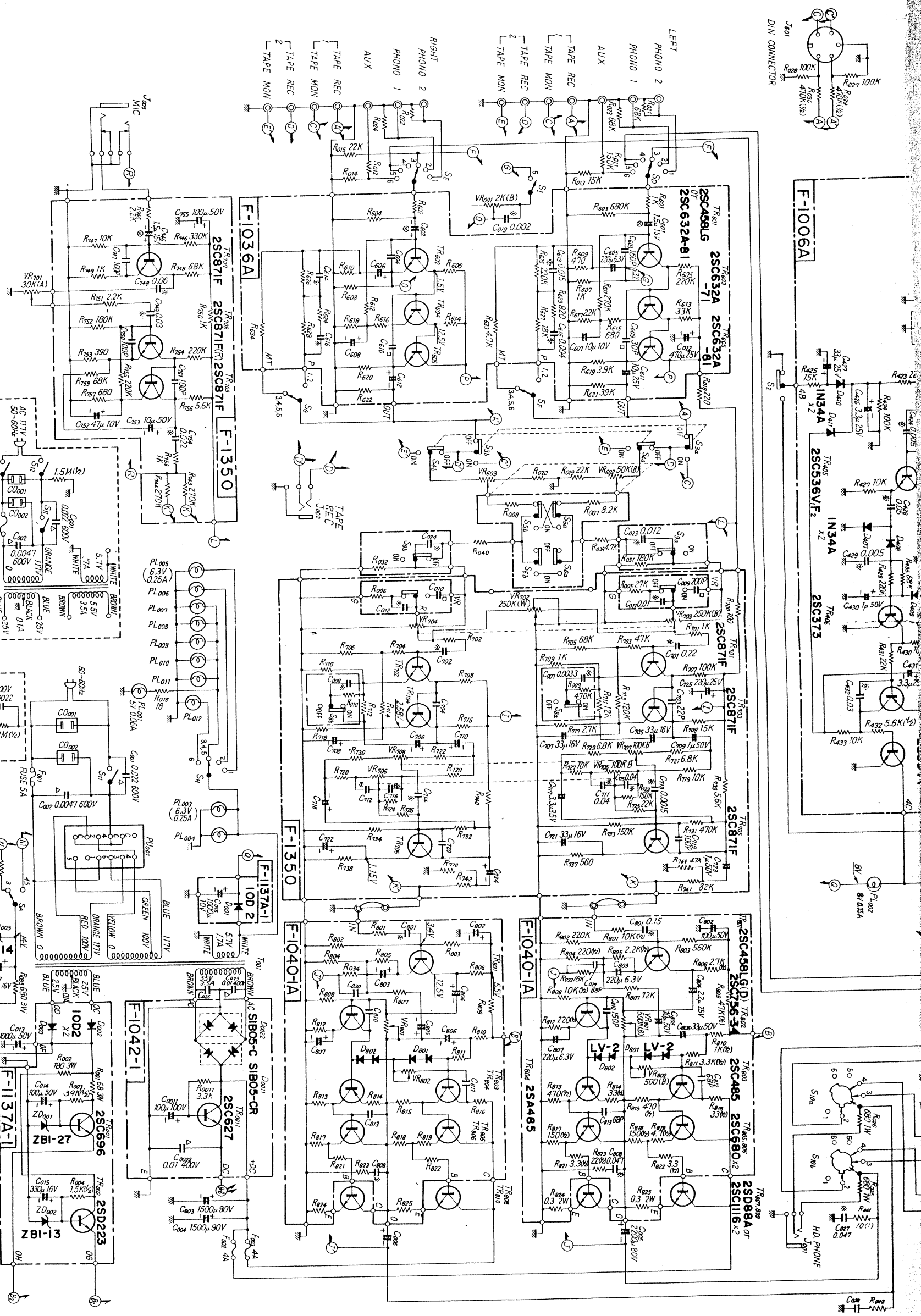
W	X	Y
ZD003	ZBI-14	0310691
PL001	5V 60mA Needle Lamp	0400100
PL002	6V 100mA Stereo Indicator Lamp	0400161
PL003	} 6.3V 250mA Power Indicator Lamp	0420020
PL004	}	0420020
PL005	6V 100mA Phono 2 Indicator Lamp	0400161
PL006	6V 100mA Phono 1 Indicator Lamp	0400161
PL007	}	0420020
PL008		0420020
PL009	} 6.3V 250mA Dial Indicator Lamp	0420020
PL010		0420020
PL011	}	0420020
PL012	6.3V 250mA Aux Indicator Lamp	0420020
CO001	} AC Outlet	2450010
CO002	}	2450010
PU001	Voltage Selector	2410080 2410090
M001	±100μA Tune Meter	4300410
M002	200μA Signal Meter	4300400
L001	AM Ferrite Bar Antenna	4200380
L002	Indicator	4900110
L107	75Ω/300Ω balloon	4290021
T001	Power Transformer	4000250
F001	5A Power Fuse (100~117V)	0430062
	3A Power Fuse (220~240V)	0430042
F002	} 4A Quick Acting Fuse	0433270
F003	}	0433270
SA~I	Selector Switch	1105090
S10	Speaker Selector Switch	1102310
S11	Power Switch	1130320
J001	Headphones Jack	2430071
J002	Tape 2 Rec. Jack	2430071
J003	Mic Jack	2430110
J601	DIN Jack	2430050
F-1085	FM Front End	7510350, 1, 2

* Design and specifications subject to change without notice for improvements.



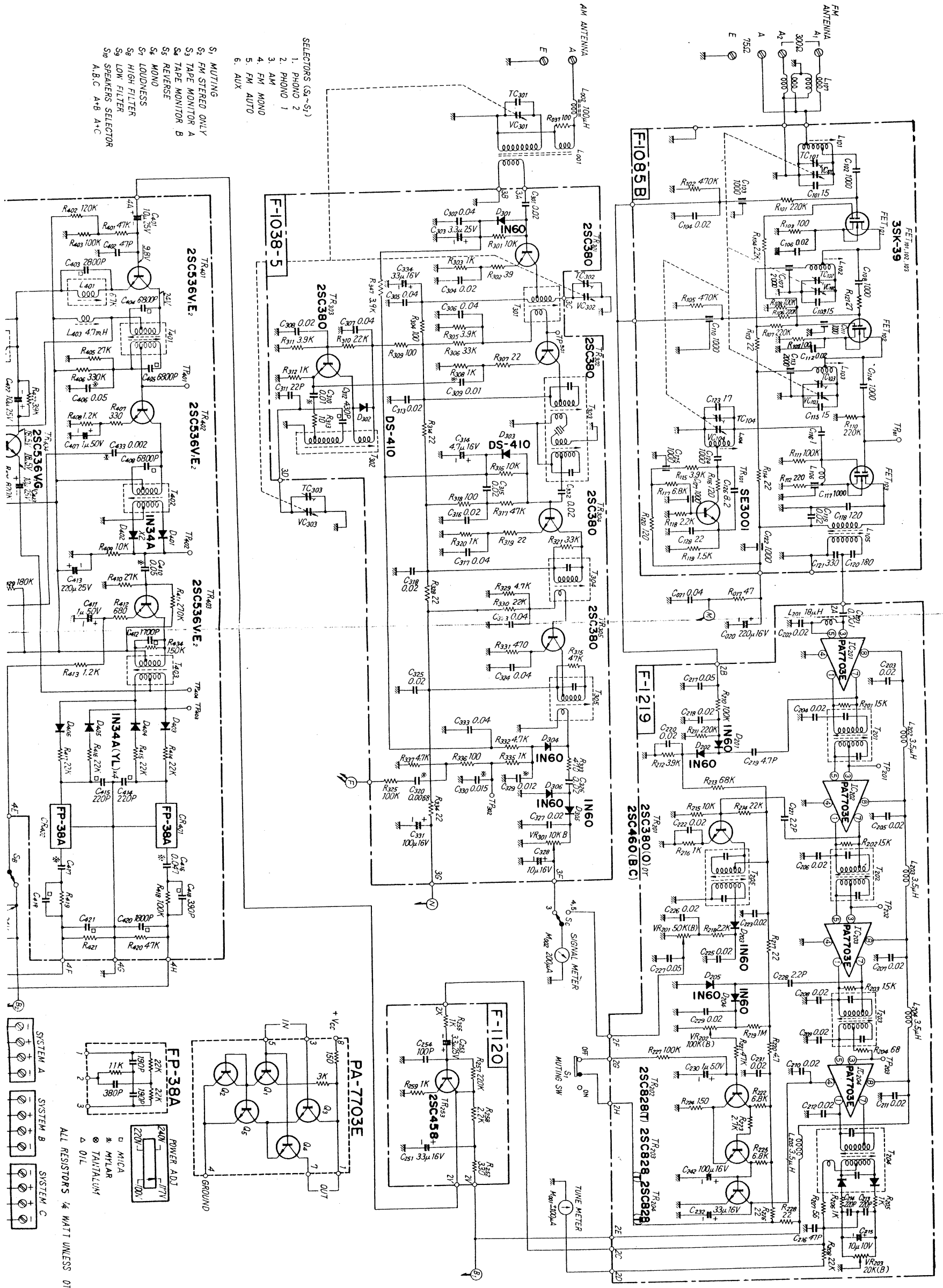


SANSUI 5000X SCH



* Manufacturer reserves right to change design and/or specifications without notice for purpose of improvement.

MATIC DIAGRAM



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